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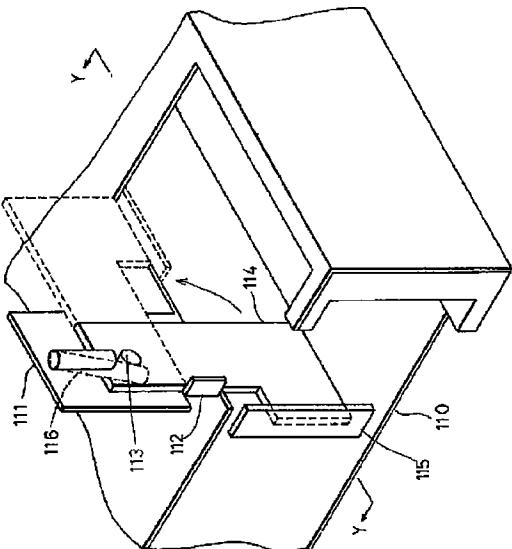
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(54)【考案の名称】 CDオートチェンジャのトレイ飛び出し防止構造

(57)【要約】

【目的】 エレベータが停止した段に収納されたトレイが振動により飛び出しエレベータの移動が妨げられることを防止するCDオートチェンジャのトレイ飛び出し防止構造を提供する。

【構成】 エレベータの上下面のいずれか一方の面に固定されストップを有する止め具111と、一端がピンによって止め具に回転可能に取り付けられたアングル114と、アングルのピンによって止められていない他の一端にエレベータの開口面の同一面上に設置された押さえ板115と、止め具のストップにアングルが当たるようアングルを付勢するバネ116と、から構成される。エレベータ内にCDがない場合は押さえ板115がエレベータの開口に蓋をする状態となり、トレイがエレベータ内に飛び出すことを防止する。



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CLAIMS

[Claims]

[Claim 1]Stops which are fixed to one field of the upper and lower sides of an elevator, and have a stopper, An angle by which an end was attached to these stops pivotable by a pin, A spring which energizes this angle at other end which is not stopped by a pin of this angle so that this angle may hit a presser-foot board installed on the same side of an effective area of an elevator, and a stopper of these stops, and tray elutriation preventive structure of a CD autochanger ** constituted.

DETAILED DESCRIPTION

[Detailed explanation of the device]

[0001]

[Industrial Application]

This design is related with the CD autochanger which has especially tray elutriation preventive structure with respect to the CD autochanger carried in a car.

[0002]

[Description of the Prior Art]

There are some which choose two or more CDs as CD (compact disk) playback equipment for automobile loading, and have what is called a refreshable autochanger function.

If it is in such a CD reproduction device with an autochanger function, two or more CDs carried in the tray are stored by the magazine in multistage.

[0003]

And search the stage by which CD which an elevator tends to play is stored, and it is made to move to a drawer playback position, while it had been carried in the tray, and playback is started.

After reproduction is completed, an elevator will store a tray in the original stage and will be in a standby state.

That is, in order for the autochanger function to operate normally, it is required for the prescribed position in a magazine to store the tray correctly, but if it is in the CD reproduction device carried in a car, a tray may jump out of a magazine on a regenerating section by vibration resulting from a run.

[0004]

And the tray which jumped out becomes an obstacle of movement of an elevator, and causes failure.

Drawing 3 is a perspective view of one working example of a CD reproduction device with an autochanger function, and comprises two portions of the regenerating section 100 and the magazine part 200.

About 12 CD220 carried in the tray 210 are made tiering, and are stored by the magazine part 200.

[0005]

The elevator 110 is installed in the regenerating section 100, and vertical movement is carried out in order to pull out the tray carrying CD which it is going to play.

If a predetermined tray is pulled out, it will move to the lowest position and CD will be played.

If reproduction is completed, the elevator 110 will go up again and will store the tray 210 in the original stage.

[0006]

and movable between the elevator 110 and the magazine part 200, in order that the tray 210 may prevent jumping out on the regenerating section 100 -- the crosspiece 300 is installed.

this -- movable -- the crosspiece 300 is connected with the elevator 110 in the mounting hardware 310, enabling free rotation.

movable -- the crosspiece 300 is connected with the magazine part 200 by the slide metal fittings 320.

[0007]

therefore, movable -- the crosspiece 300 does not bar up-and-down motion of the elevator 110.

drawing 4 is a perspective view of the regenerating section 100 seen from the X-X

section, and is [above the elevator 110] movable .. the 2nd is movable not only in the crosspiece 300 but a lower part .. a crosspiece .. 300' is provided.

therefore, the tray 210 stored by stages other than the stage which the elevator 110 has stopped when a CD reproduction device is in a standby state .. two .. movable .. jumping out by a crosspiece is prevented. [0008]

[Problem(s) to be Solved by the Device]

However, since the opening 120 for drawing the tray 210 is formed in the elevator 110, The tray 210 of the stage in which the opening 120 of the elevator 110 has countered during a stop of the elevator 110 or vertical movement cannot be prevented from jumping out of the magazine part 200 by vibration.

[0009]

And movement of the elevator 110 is not only barred, but it becomes a cause of failure when the tray 210 jumps out.

This design is made in view of this problem, and it aims at providing the tray elutriation preventive structure of the CD autochanger which prevents movement of an elevator from a tray jumping out by vibration to the opening of an elevator, and being barred.

[0010]

[Means for Solving the Problem]

Stops which are fixed to one field of the upper and lower sides of an elevator, and have a stopper, It is ** constituted with an angle which an end stopped by a pin and was attached pivotable in detail, a presser-foot board installed on the same side of an effective area of an elevator by other ends which are not stopped by a pin of an angle, and a spring which energizes an angle so that an angle may be equivalent to a stopper of stops.

[0011]

[Function]

According to this design, an angle is maintained by the state where it hit the stopper when there is no tray into an elevator.

Therefore, it presses down and a tray prevents entering in EREBEEETA by vibration with a board.

[0012]

[Example]

A perspective view for drawing 1 to describe working example of the tray elutriation preventive structure concerning this design and drawing 2 are Y-Y sectional views, and show the example installed in the upper surface of the elevator 110.

That is, the stops 111 are vertically fixed to the upper surface of the elevator 110, a part

of these stops 111 are cut and lacked, and the stopper 112 is formed.

[0013]

The angle 114 of the L type is attached to the stops 111 by the pin 113.

This angle 114 is pivotable considering the pin 113 as a center.

It presses down at the end which is not stopped by the pin 113 of the angle 114, and the board 115 is attached by welding.

[0014]

The end of the spring 116 is fixed to the end furthermore stopped by the pin 113 of the angle 114.

Other ends are being fixed to the stops 111, and in the state where the tray is not drawn in the elevator 110, this spring 116 is energizing the angle 114 so that it may hit the stopper 112.

[0015]

That is, it will be in the state where the presser-foot board 115 covers the opening of the elevator 110, and the tray 220 by which CD is carried will be prevented from moving into the elevator 110.

Operation which draws the tray 220 in the elevator 110 in order to play CD is performed by the drawing-in mechanism driven by the motor which is carried in the elevator 110, and which is not illustrated.

[0016]

The drawing-in power of a drawing-in mechanism is powerful, can resist the power energized by the spring 116 and can draw a tray in the elevator 110.

[0017]

[Effect of the Device]

According to this design, a tray can be prevented from being in the state where the opening of the elevator was carried out in the lid with the presser-foot board attached to the angle energized by means of a spring etc., and jumping out in an elevator by vibration when the tray is not drawn in the elevator.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] Drawing 1 is a perspective view for describing working example of the tray elutriation preventive structure concerning this design.

[Drawing 2] Drawing 2 is a Y-Y sectional view.

[Drawing 3] Drawing 3 is a perspective view of one working example of a CD

reproduction device with an autochanger function.

[Drawing 4]Drawing 4 is a perspective view of a regenerating section.

[Description of Notations]

110 .. Elevator

112 .. Stopper

113 .. Pin

114 .. Angle

115 .. Presser-foot board

116 .. Spring